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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/747,296

12/22/2000

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120-081

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34845 7590 09/04/2012
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EXAMINER

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ART UNIT

PAPER NUMBER

2476

NOTIFICATION DATE

DELIVERY MODE

09/04/2012

ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TAL I. LAVIAN and STEPHEN LAU

Appeal 2011-001312
Application 09/747,296¹
Technology Center 2400

Before JOSEPH L. DIXON, JAMES R. HUGHES, and
ANDREW J. DILLON, *Administrative Patent Judges*.

HUGHES, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Application filed on December 22, 2000. The present Application claims benefit from U.S. Provisional Application No. 60/226,787 filed August 21, 2000. The Real Party in Interest is Nortel Networks Limited. (App. Br. 2.)

STATEMENT OF CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1 and 3-24. Claim 2 was cancelled during prosecution. (App. Br. 2.) We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Invention

Appellants' invention relates generally to telecommunications. More particularly, the present applications relates to dynamic assignment of traffic classes to queues having different priority levels. (Spec. 1, ¶ [0004].)²

Representative Claim

1. In a packet forwarding device, a method comprising:

monitoring types of packet traffic received in the packet forwarding device;

determining whether a type of packet traffic received in the packet forwarding device is a unicast type or a multicast type; and

when the type of packet traffic is unicast type, selectively modifying a priority of the traffic in response to a destination parameter of the packet traffic; and

when the type of packet traffic is multicast type, selectively modifying the priority of the traffic in response to a source parameter of the packet traffic

² We refer to Appellants' Specification ("Spec."); Reply Brief ("Reply Br.") filed October 15, 2010; and Appeal Brief ("Br.") filed May 6, 2010. We also refer to the Examiner's Answer ("Ans.") mailed August 18, 2010.

wherein the step of selectively modifying the priority includes performing at least one of changing assignment of the packet traffic from a queue having a first priority to a queue having a second priority, dropping packets of the packet traffic, copying packets of the packet traffic, and diverting packets of the predetermined type in the packet traffic.

Rejections on Appeal

1. The Examiner rejects claims 1, 3-10, 12-15, 17, and 19-24 under 35 U.S.C. § 103(a) as being unpatentable over Hoffman (US Patent No. 6,094,435; filed June 30, 1997) and Ambe (US Patent No. 7,009,968, May 7, 2006, claiming benefit from Provisional Application No. 60/210,510 filed June 9, 2000).

2. The Examiner rejects claims 11, 16, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Hoffman, Ambe, and Bowman-Amuah (US Patent No. 6,611,867; filed Aug. 31, 1999).

Grouping of Claims

Based on Appellants' arguments in the Briefs, we will decide the appeal on the basis of representative claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUES

1. Under § 103, did the Examiner err in finding that the cited reference combinations would have collectively taught or suggested:

when the type of packet traffic is unicast type, selectively modifying a priority of the traffic in response to a destination parameter of the packet traffic; and

when the type of packet traffic is multicast type, selectively modifying the priority of the traffic in response to a source parameter of the packet traffic;

(Claim 1(emphasis added)) within the meaning of independent claim 1 and the commensurate language of independent claims 13 and 20?

2. Under § 103, was the Examiner's rejection based on impermissible hindsight?

FINDINGS OF FACT

We adopt the Examiner's findings in the Answer and the Final Office Action as our own, except as to those findings that we expressly overturn or set aside in the analysis as follows.

ANALYSIS

Claims 1, 3-10, 12-15, 17, and 19-24

Distinguishing Between Unicast and Multicast packets for Prioritization

Appellants contend, *inter alia*, that the cited passages cannot be interpreted as suggesting anything more than that priority would be changed for both unicast and multicast packets. (Reply Br. 11; App. Br. 11.) We disagree for the reasons discussed *infra*.

Appellants argue that the cited references do not make a "distinction between modifying priority of the traffic in response to a destination parameter for a unicast packet and in response to a source parameter for a multicast packet." (App. Br. 12.)

The Examiner found that Ambe teaches an incoming packet is read to *determine packet type* (unicast / multicast) (Ans. 7, 18; Ambe, col. 3, ll. 21-

51), and Ambe further teaches that the ARL (Address Resolution Logic) decides the COS (class of service) for a packet (unicast or multicast) *based on either source or destination addresses* (Ans. 7, 18-19; Ambe, col. 13, ll. 22-24). Thus, we find that Ambe teaches that in the case of a *unicast packet*, a COS (priority) may be based on the destination address (destination parameter). The Examiner also found that Hoffman discloses adjusting priorities for a packet on *a particular output port* (priority based on destination). (Ans. 18; Hoffman, col. 15, ll. 61-65.)

The Examiner further found that Ambe teaches, in the case of a packet (unicast or multicast) *coming in from an ingress port* (source), ingress rules are applied based upon Filtering Mechanisms. (Ans. 18.) The resulting actions taken according to the ingress rules include *changing the 802.1p priority in the packet Tag header*. (Ambe, col. 9, ll. 10-21.) Therefore, we find that, in the case of a multicast packet, Ambe teaches/suggests that the priority of a multicast packet can be changed based upon receiving the multicast packet from an ingress port (source parameter).

Thus, in light of the above, we conclude that the combined teachings of the cited references would have taught or at least suggested modifying priority of the traffic in response to a destination parameter for a unicast packet, or modifying priority of the traffic in response to a source parameter for a multicast packet. Therefore, it is our view that the cited references teach or suggest each scenario recited in the claimed limitations.

While we agree with Appellants that the cited references do not *clearly* distinguish between the scenarios (unicast vs. multicast), it is our view that making such a clear distinction would have been obvious to one of ordinary skill in the art at the time of the invention. In ascertaining the

scope of the present claims, we note that the claim is complete in the event of either separate scenario. It is further our view, that the differences between the prior art and the present invention, i.e., distinctions in how a unicast packet and a multicast packet are specifically treated, are not precluded by the disputed limitations and render the present invention nonobvious, where the cited references teach that the priority of a unicast packet can be modified based on a destination parameter and the priority of a multicast packet can be modified based on a source parameter.³

Based on this record, we conclude that the Examiner did not err in finding that the cited references would have taught or suggested “*when the type of packet traffic is unicast type, selectively modifying a priority of the traffic in response to a destination parameter of the packet traffic; and when the type of packet traffic is multicast type, selectively modifying the priority of the traffic in response to a source parameter of the packet traffic,*” as recited in representative claim 1 (emphasis added).

Hindsight

Appellants contend that the Examiner relies on impermissible hindsight to interrelate known features in a previously unknown manner. (Reply Br. 15; App. Br. 12.)

While we are fully aware that hindsight bias often plagues determinations of obviousness, we are also mindful that the Supreme Court has clearly stated that the “combination of familiar elements according to known methods is likely to be obvious when it does no more than yield

³ *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The level of skill in the art is not in dispute.

predictable results,” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 401 (2007).

This reasoning is applicable here. Thus, we find unavailing Appellants’ contention that the Examiner has relied on impermissible hindsight reconstruction. Given the breadth of Appellants’ claims, we are not persuaded that combining the respective familiar elements of the cited references in the manner proffered by the Examiner was “uniquely challenging or difficult for one of ordinary skill in the art” (*see Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418)). Therefore, we find the Examiner’s proffered combination of familiar prior art elements according to their established functions would have conveyed a reasonable expectation of success to a person of ordinary skill having common sense at the time of the invention.

Based on this record, we conclude that the Examiner did not err in rejecting representative claim 1. Accordingly, we affirm the Examiner’s rejection of claim 1 and claims 3-10, 12-15, 17, and 19-24 not separately argued with particularity (*supra*).

Claims 11, 16, and 18

As noted above, claims 11, 16, and 18 stand rejected as obvious over Hoffman, Ambe, and Bowman-Amuah. Appellants do not present separate arguments for the patentability of these claims. (App. Br. 12-13.) Therefore, we affirm the Examiner’s rejections of dependent claims 11, 16 and 18 for the same reasons discussed *supra*.

CONCLUSION OF LAW

Appellants have not shown that the Examiner erred in rejecting claims 1 and 3-24 under 35 U.S.C. § 103(a).

DECISION

We affirm the Examiner's rejection of claims 1 and 3-24, under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED